San Joaquin County and Delta Water Quality Coalition

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September 13, 2013

VIA EMAIL TO Chris Jimmerson - Chris.Jimmerson@waterboards.ca.gov

Pamela Creedon
Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

Re: Comments on San Joaquin County and Delta proposed WDR General Order

Dear Ms. Creedon,

The San Joaquin County and Delta Water Quality Coalition (SJC & DWQC) appreciates the opportunity to provide these comments on the administrative draft San Joaquin County and Delta proposed Waste Discharge Requirements General Order. We also wish to thank your staff for the time and effort they have spent working with our coalition over the last several months.

A. Over-Arching Policy Concerns

The proposed order should not assume that all water that leaves the crop root zone is a discharge or threatened discharge to groundwater that can and should be regulated.

On page 2 #5 of the draft WDR it states ñThis Order is not intended to regulate é water quality of soil pore liquid within the root zone.ò The scope of the intended regulation of water quality that leaves the root zone, but does not reach saturated groundwater, is unclear and may be read by some to imply regulation of any water that leaves the root zone. Molecules of water moving past the root zone are not ñwaters of the stateò subject to the permitting authority of the Regional Board unless water leaving the root zone could impact the water quality of groundwater (in the saturated zone). The concept that all water that leaves the root zone becomes groundwater and carries all the constituents that were applied to the field with it to the groundwater basin is inherently wrong. How water travel through the soil strata is determined by a myriad of factors that include but are not limited to soil types, soil layers (e.g., clay layers and hardpan layers), soil density, rainfall, percolation and plant uptake. Also, many factors determine which constituents actually travel to the groundwater basin; factors such as microbial activity, half-life of active ingredients, and plant uptake.

Paragraph 8 correctly states that the order regulates lands ñfrom which there are discharge of waste that could affect the quality of any waters of the state.ò We suggest that similar language

be added to Paragraph 5 so remove any implication that (1) the Regional Board intends to regulate water as it moves past the root zone when there is not a threat to waters of the state, or (2) that movement of water below the root zone is a de facto discharge of waste ï which it is not.

The proposed order should not assume that "best management practices" can be clearly identified at the onset of the program.

Throughout the order there is an underlying assumption that the Regional Board and third parties will be able to identify the precise conditions in the groundwater basin and the management practices that are and are not protective of groundwater quality. The order needs to recognize that this is not an exact science, but will be an on-going cooperative effort to learn and improve. It is more likely that we will learn that ñbest practicable treatment and controlò is not a precise set of operational criteria for farming operations, but rather continued cooperative research to learn more.

The proposed order imposes costly and burdensome regulations on all farmers without any evidence of a threat to water quality by most farmers or evidence that many of the new reporting requirements will improve water quality.

Our coalition understands that there is a legacy nitrate groundwater contamination problem in the Central Valley. The Regional Board needs take action to ensure the problem does not get worse. However, the proposed order includes multiple layers of regulatory burden on all farms that will not achieve the Regional Boardôs goal of improving water quality or preventing additional degradation, but will add a significant cost and burden to an entire industry. For example, many of the growers in our Coalition already use drip or low flow irrigation methods and good pesticide, herbicide and nutrient management practices that are protective of water quality. These good farmers are also already attending education conferences and reading about the newest research to farm better. While they may operate farms that overlie portions of a groundwater basin that the state deems ñhighly vulnerable,ò these farmers and local water quality conditions will not benefit from the farmersô required attendance at *annual* education programs, the required completion and submittal of *annual* farm evaluations, or the *annual* nutrient management plans or reports. Rather, these items will only represent duplicative paperwork and costly burdens on our individual members and on the Coalition ï burdens that utilize precious resources that should be spent on activities that will actually improve management practices and improve or prevent further degradation of water quality.

While we support and appreciate the language in the proposed order that allows the Executive Officer to relax the frequency of some of the reporting obligations after a few years, this does not fix the problem. We will still have at least three years of duplicative, expensive and unnecessary reporting obligations and no certainty that these will be relaxed. The coalitions will have to make substantial investments in overhead to properly process and summarize the unnecessary reporting.

We urge staff and the Board to reconsider the frequency of individual reporting required in the proposed order at the on-set. For example, is there really enough valuable information to be gained through annual submittals of Farm Evaluations in High Vulnerability areas to justify the

burden and expense of this annual requirement for all members in that designation? We submit that there is not. Nor will the annual task of completing this same form improve water quality. The same is true of Nutrient Management Plans and Reports for permanent crops that do not change from year to year or row crops in a regular rotation. The compilation of this information on a three or five year schedule is sufficient to track trends in management practices and educate growers on how nutrient application affects groundwater quality. Reducing the frequency of reporting would greatly reduce the burden and expense for members and the third party while still allowing the Regional Board to collect useful data and achieve the intent of the regulations.

The cost of complying with the new order must be controlled or we will lose members and the program will fail

In many of our comments you will see a common theme ï with minor modifications to the order the Regional Board can obtain the same information relevant to its water quality goals at a lower cost. The reason for these comments is simple. If the cost of this program on a per acre-basis doubles or triples we will lose too many members and this Coalition will no longer operate. We do not want the program to fail.

B. Deadlines for Individual Submittals

The proposed order requires that the Notice of Confirmation and the Farm Evaluation Plans be completed by June 15 (years vary); however, the Nitrogen Management Plan and the Nitrogen Management Plan Summary Report are due by June 1 (years vary) (VII.D, Page 26-27). In addition, Member reporting on Mitigation Monitoring has an annual due date of June 1. Different dates for different reports increases work and expense for the members and coalition. We respectfully request that the deadline for all reports that the Member is required to submit to the third party be changed to June 15.

C. **Farm Evaluation**

The proposed order requires every member to submit an initial detailed Farm Evaluation. Members in high vulnerability area must continue to submit annually while other members submit every five years. After three years, the Executive Officer may reduce the frequency of required reporting.

We do not yet know the level of detail that will be required for these reports or whether they will be done on a parcel basis, total farm basis, or field basis. An evaluation of sufficient detail to be meaningful will be a time consuming paperwork exercise for members and a significant expense for the third party for data entry and analysis.

As we have discussed with staff, it is imperative that the requirement that these reports be submitted annually be modified. The annual reproduction and submittal of this detailed report is very costly for farmers and the third party and will not help identify or correct water quality problems. It is also critical that the template be user-friendly and simple enough to generate useful, accurate information for purposes of evaluation.

D. Nutrient Management Budgets and Reports

The proposed order requires certification of Nutrient Management Plans by certain identified professionals, or by self-certification if educational criteria are met. We encourage the Board to develop a template that can be used by farmers to supply useful information without the need for certification. While many farmers may seek additional education or the assistance of a professional, this should not be mandated as part of the regulation due to the additional expense. Farmers know their fields and applicable rates better than anyone else and are in the best position to supply this information.

E. Annual Attendance at an Outreach Event

Section IV-B-3 requires members to attend an outreach event every year. The Coalition agrees that outreach events are useful to educate growers. However, an annual attendance requirement is overkill. Research and management practices do not change fast enough to warrant an annual requirement. Attendance every 2-3 years would be sufficient to achieve the same benefits at one-half to one-third of the cost.

F. Unique Circumstances

The proposed order recognizes that there are unique circumstances in our region that will need to be addressed, including characterization of groundwater underlying the Delta and treatment of unusable groundwater in other parts of the defined regulated area. We appreciate the Regional Boardôs recognition of these unique geographic attributes and the willingness to customize the regulation to address them.

G. Information Sheet

Exhibit A to this letter contains a list of specific edits and comments to the Information Sheet Attachment.

H. Monitoring and Reporting

Exhibit B to this letter contains a list of specific edits and comments to the MRP Attachment.

I. “Exceedances” must account for source water

As written, the Monitoring and Reporting Program utilizes ñexceedancesò from water testing results to determine when additional monitoring requirements or management plans are triggered. (See e.g., Attachment B, Section III). Water testing locations are designed to capture water discharged from irrigated fields. In many instances in our Coalition, discharge water will have an ñexceedanceò only because the source water diverted and applied to the farm started with the same ñexceedanceò. In these cases, resources are wasted by allowing the ñexceedanceò in the discharge water to trigger additional regulatory requirements because the ñexceedanceò was not caused by farming. We respectfully request that Attachment B be modified to clarify that when an ñexceedanceò in test results can be traced to source waters, rather than the activity

of irrigated agriculture in the watershed area being tested, the test result will not be deemed an ñexceedanceò for purposes of triggering additional testing or management plan requirements.

J. Use of Department of Pesticide Regulation Groundwater Protection Areas

The proposed order references DWR Groundwater Protection Areas in several places as a source of information relevant to designation of high vulnerability areas for groundwater. While we agree that some information compiled by DPR may be useful in the Groundwater Assessment Report and monitoring plan design, significant, care must be taken when using DPR data to generically characterize groundwater in an area as highly vulnerable or at risk of a discharge of waste from irrigated agriculture. DPR groundwater protection areas are designed for a specific constituent and are based on how that constituent travels through the soil and reacts with the soils types. To use these areas with a broad interpretation that any constituent applied in this area would have the potential to impact groundwater is inaccurate and unscientific. Just because this area might be susceptible to contamination by a certain constituent does not extrapolate into it being vulnerable to fertilizers or nitrates.

With this in mind, we respectfully request that the second paragraph in Section IV-A-4 (on page 14 of Attachment B) be revised. As written, the order states that if the GAR is not submitted by the third party by the required deadline, the Executive Officer will designate default high/low vulnerability area using:

> ñé 1) those area that have been identified by the State Water Board as Hydrogeologically Vulnerable Areas, 2) California Department of Pesticide Regulation groundwater protection areas, and 3) areas with exceedances of water quality objectives for which irrigated agriculture waste discharges may cause or contribute to the exceedance.ò

As written, this language suggests that the Executive Officer would use DPR Groundwater Protection Areas as a form of default ñhigh vulnerabilityò area for purposes of the WDR. This would be unscientific and unreasonable. While our Coalition has no intention of missing the required deadline for submittal of the GAR, missing a deadline should not be an excuse to set ñhigh vulnerabilityò in an unscientific manner. If the Executive Officer is required to determine ñhigh vulnerabilityò areas for purposes of the WDR, the Executive Officer should be required to use all relevant information to make that determination in a scientifically justified manner, just as the third party would do. The DPR groundwater protection areas should not be allowed as an automatic default.

K. Method for development of water quality trigger limits and establishing water quality testing methods

Our coalition is concerned about how water quality trigger limits are set and testing methods determined in the proposed order. As stated in this order, water quality triggers for those pesticides that do not have a criteria already established will need to be developed by the Regional Board staff with ñstakeholder input.ò (See Attachment B page 25 section VII) This language is too vague because it could be interpreted to mean that stakeholders are merely given an opportunity to review and comment on the proposed trigger limits. The stakeholder input

should be in the form of a technical committee comprised of stakeholder representatives with appropriate expertise and scientific background. We respectfully request that Attachment B be revised to reflect the use of such a committee to set water quality trigger limits.

L. CEQA Compliance

We do not agree that the regulatory program included in the proposed order, or its estimated costs, is sufficiently within the range of the alternatives previously analyzed in the Programmatic EIR. To properly comply with CEQA, the Regional Board should prepare a supplemental EIR for this specific proposed order and should revise its costs estimates.

M. Water Code sections 13141 and 13241

Pages 10-11 of the draft order discuss cost estimates as required by the Water Code. We continue to believe that these cost estimates are unreliable. A good portion of the increased cost of the new regulations will be the increased individual reporting that the third party must summarize and analyze for the Regional Board. The templates for this reporting, as well as the instructions as to how frequently these reports must be completed and compiled, was not available when the cost study was performed and could not have been accounted for in that study. In short, the prior cost study is wholly unreliable. The Regional Board should update the cost study with the specific requirements of the current proposed order before proceeding.

N. Other

Section VI, paragraph 5 (page 23) cross-references Finding 50. It appears this may be incorrect.

There are other issues with section references in the text that should be double checked. For example, on page 21 of the Order, under IV.C.9, the second sentence references IV.B.4 regarding Member participation; the correct reference is IV.B.3.

Thank you again for the opportunity to comment on the proposed order. We look forward to providing additional comments at the October workshop.

Sincerely,

Mike Wackman
San Joaquin County & Delta Water Quality Coalition

cc: San Joaquin County Resource Conservation District Board of Directors

EXHIBIT A: Specific Comments on Information Sheet Attachment A

Page 5. There is a reference to Figure 5 but Figure 5 is not included in the Information Sheet.

Page 13. E. coli should be italicized, i.e., *E. coli*.

Page 14. Table 3.

- The column heading of the third column is "Range of Detected Levels." The entries in the column are often ND which does not make sense. A detected level cannot be a non-detected concentration. The Toxicity section does complicate the column heading. A suggested column heading is "Range of Observed Results."
- The trigger limit for HCH is 0.0039 µg/L, not 0.95 µg/L as indicated in the table.
- Under the Toxicity section of the table, the row that describes *Selenastrum* indicates an endpoint of survival. The endpoint is growth and the range does not range from 0-100%.
- Under the Metals section of the table, the row for Lead is not specified as to dissolved or total. Arsenic, listed above, is only measured as total so clarification is not necessary. But both the total and dissolved fractions are measured for lead, so the fraction needs to be specified. Also, the superscripts (3) are incorrect. The trigger limits for the dissolved fraction of copper and lead are based on hardness. The trigger limits for total copper and lead are numeric values that are independent of any parameter such as hardness. The trigger limit for copper, total is fixed at 1300 µg/L.
- Footnote 4 does not appear to be relevant to entries in the table.
- Under the Nutrients and Salts section of the table, the trigger limit of ammonia is listed as variable with a footnote that should be 5 because the trigger limit is based on pH and temperature.
- Electrical Conductivity should be Specific Conductance.
- Under the Other section of the table, the trigger limit for dissolved oxygen is stated to be >5 or >7 mg/L. The trigger limit is <5 or <7 mg/L.
- The first footnote states that ND = Not detected at measurable levels. The more appropriate footnote is simply ND = Not detected. However, although it may have been missed, there appears to be no footnote 1 in the body of the table.

Page 15, Table 4. The table should include the 6th high priority site, Drain at Woodbridge Rd. The text in the following paragraph should also reflect the addition of the 6th high priority site.

Page 15. There is a statement that "The Coalition conducted approximately 166 individual outreach…." The correct number is 173.

Page 22. In the next to last paragraph, there is a reference to "see section IV.B.21 of the Order." The last section in the Order is section 20, which references management practices. It is unclear what is being referenced here.

EXHIBIT B: Specific Comments on MRP Attachment B

There are a number of minor typographical and grammatical corrections that need to be made prior to the release of the public draft. For example, there is inconsistent use of capitals in the use of "Section" and "section," "Site" and "site," etc. These are not included in the comments that follow.

Specific comments
P3. Section III A 1. There is a statement that "When a water quality objective or trigger limit at a monitored Core site is exceeded, the parameter associated with the exceedance must be monitored for a third consecutive year." Does this apply to TMDL constituents or does a single exceedance of a TMDL constituent trigger a Management Plan eliminating the need for the third year of monitoring?

P3. In the next to last sentence the term "Core" should be replaced with "Represented."

P4. Section III A 2. There is a statement that "Any applicable surface water quality management plan (SQMP) actions associated with the Core site must take place in these watershed areas (represented drainages without monitoring sites)." The statement should be qualified to state that "unless there is evidence that the constituent of concern is not present in the waterway (e.g., through the use of Pesticide Use Reports, previous monitoring)."

P5. Table 1. There is an asterisk in the table title that does not have a table footnote.

P6. Section III C 1 b. The reference in the parentheses to Section VIII should be Section VII.

Page 6. Section III C 2. The first sentence of the second paragraph states, "For metals, …." The sentence should read "For metals applied by agriculture, …."

Page 6. Section III C 3. The third sentence of the paragraph states, "The pesticides identified as 'to be determined' (TBD) on Table 2 shall be identified as part of a process that includes input from qualified scientists and coordination with the Department of Pesticide Regulation." The stakeholders involved in the process of determining pesticides the Coalition will monitor should include representatives of the Coalition.

Page 7. Table 2. Table 2 lists constituents to be monitored. As part of the metals list, both total and dissolved phase analyses are required for cadmium, copper, lead, nickel, and zinc. There is no need to analyze for the total fraction of these metals. The dissolved phase is the bioavailable phase and is the phase on which a determination of an exceedance is made. Analyzing for the total phase adds cost to the analyses for no increase in information.

P9. Section III C 4 a. There is a statement that "If within the first 96 hours of the…." The statement implies that the test duration is greater than 96 hours, but the test duration for the three required tests is 96 hours. Eliminate the term "first."

Page 10. Section III C 4 b. In the third paragraph there is a statement that "Sediment samples that show significant toxicity to *Hyalella azteca* at the end of an acceptable test and that exhibit < 80% organism survival compared to the control will require pesticide analysis of the same sample in an effort to

determine the potential cause of toxicity." The handling of the sediment used for toxicity testing and the preservation requirements/hold time of the sediment used for chemical analyses preclude the use of the same sample for both analyses. The statement should read "Sediment samples that show significant toxicity to *Hyalella azteca* at the end of an acceptable test and that exhibit < 80% organism survival compared to the control will require pesticide analysis of a *sample collected at the same time and location* in an effort to determine the potential cause of toxicity."

Page 10. Section III C 4 b. In the same paragraph there is a reference to a "practical reporting limit." Is the term supposed to be "practical quantification limit"? We are unable to find any usage of the term practical reporting limit in the literature and recommend that the term be changed to "practical quantification limit" to avoid confusion.

Page 10. Section III C 5. There is a statement that "The studies shall be representative of the effects of changes in management practices for the parameters of concern." It is not clear what this statement means. Studies are not representative of anything. If the goal is to develop studies that evaluate the effects of the change in management practices on water quality, the statement should be reworded.

Page 12. Section IV. At the end of the first paragraph there is a statement that "The third- party must collect sufficient data to describe irrigated agricultural impacts on groundwater quality and to determine whether existing or newly implemented management practices comply with the groundwater receiving water limitations of the Order." Practices cannot comply with receiving water limitations. The sentence should be reworded to state "The third- party must collect sufficient data to describe irrigated agricultural impacts on groundwater quality and to determine whether *existing or newly implemented management practices will result in discharges that will comply with the groundwater receiving water limitations of the Order*."

Page 12. Section IV. Remove the term "overall" from items 2 and 3 as the term is unnecessary in the context of the statements.

Page 13. Section IV A 2. Change the language from "alkalinity and acidity" to "alkalinity or acidity."

Page 14. Section IV A 5. The last bullet point makes reference to "relative toxicity." It is not clear what relative toxicity means and the term should be dropped.

Page 19. Table 3. The table indicates "Nitrate as nitrogen" is the constituent to monitor. Although there is generally very little nitrite in groundwater, the constituent should be "Nitrate as nitrogen, or Nitrate+Nitrite as nitrogen."

Page 23. Report Component 17. There is a statement that "The summary of nitrogen management data must include a quality assessment of the collected information by township…." For clarity, the statement should read "The summary of nitrogen management data must include *an assessment of the quality of the collected* information by township …."

Page 23. Report Component 18. There is no footnote 12 so the numbering jumps from 11 to 13. Also, though there is a citation to footnote 13, there is no footnote 13 in the document.